

MRAM SENSE LAYER ISOLATION

Abstract of the Disclosure

A process for forming an MRAM element. The process comprises patterning a globally deposited sense layer and then forming a spacer about the patterned sense layer so as to cover the lateral edges of the patterned sense layer. Subsequently, a globally deposited tunnel layer and fixed layer are patterned so as to define the MRAM element. Preferably, the pinned layer is patterned such that the outer lateral edges of the pinned layer is displaced in a direction parallel to the substrate from the lateral edges of the patterned sense layer thereby reducing coupling effects between the two layers. Moreover, the use of a spacer during the process further inhibits shorting between the sense layer and the pinned layer during patterning of the pinned layer.

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